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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,383	02/28/2002	Gregory Stuart Snider	10008138	6269

7590 07/18/2003

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

KIK, PHALLAKA

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 07/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/084,383	SNIDER, GREGORY STUART
	Examiner Phallaka Kik	Art Unit 2825

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-8 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_ is/are allowed.  
 6) Claim(s) 1-8 is/are rejected.  
 7) Claim(s) \_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 28 February 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 11) The proposed drawing correction filed on \_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.  
 12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.  
 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.  
 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ .
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .	6) <input type="checkbox"/> Other: ____ .

## DETAILED ACTION

### ***Claim Objections***

1. **Claims 1-6,8** are objected to because of the following informalities:

As per **claim 1**, "plurality" (line 2) should be --a plurality of-- for proper grammar; "which" (line3) should be --said graph-- for further clarification.

As per **claim 2**, "can identify" (line 2) should be --further identifies-- to clearly define what is being claimed.

As per **claims 2-6**, the claims are objected to for incorporating the above errors into the respective claims by claim dependency.

As per **claim 8**, --, further-- should be inserted after "claim" (line 1) to clearly indicate the further limitations of the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1-8** are rejected under 35 U.S.C. 102(b) as being anticipated by **Brown et al.** ("A Detailed Router for Field-Programmable Gate Arrays", 1990 IEEE International Conference on Computer-Aided Design, 11 November 1990, pp. 382-385).

As per **claims 1,7**, all of the elements of the claims are illustrated in Figs. 2, 3a and 3b and described in section 4.1, page 383, wherein the expanded graph corresponds to the routing-resource graph, wherein the first and second, and subsequent wiring data structures correspond to the C blocks data structures and the switch data structure corresponds to the S blocks data structures (see also section 2, page 382), wherein the identity information corresponds to the particular wiring segments (see Fig. 3b, "edge labels") and the switch information corresponds to the connection points (see section 2, page 382, paragraph 2) illustrated as vertices in Fig. 3a and 3b.

As per **claim 2**, the first switch data structure identifying a fourth wire connected to the second wire is illustrated in Fig. 3b in which one of four wiring paths of c at grid 3,4 are connected to the previous wiring paths c at grid 2,3.

As per **claim 3**, the wire information containing the local names are illustrated in Fig. 3b as edge labels (i.e., 0, 1, 2).

As per **claims 4-5**, the switch information being an array of switch data structures are illustrated in Fig. 2 (see also page 382, last paragraph).

As per **claim 6**, the method call to determine a pointer to the second wire corresponds to the function call as described in section 4.1, page 383, paragraph 2.

As per **claim 8**, since there are a plurality of S blocks (switch structures) as illustrated in Fig. 2, the course routes graph containing a plurality of S blocks (i.e., switches at relative locations) would necessary be identified when expanded as described in section 4.1.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is requested herein to consider them carefully in response to this Office Action.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 703-306-3039. The examiner can normally be reached on Flexitime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 703-308-1323. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.

**Any response to this action should be mailed to:**

Commissioner for Patents

P. O. Box 1450

Alexandria, VA 22313-1450

**or faxed to:**

703-872-9318 (for Before-Final) and 703-872-9319 (for After-Final) for formal communications intended for entry,

Or:

(703) 746-4111 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT" and let the examiner know prior to faxing)  
Hand-delivered responses should be brought to Crystal Plaza 4, 2201 South  
Clark Place, Arlington, VA 22202, Fourth Floor (Receptionist).

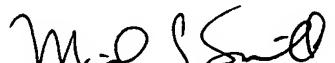
**6. Applicant should note that effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address for transitioning to the new Office location in Alexandria, VA, wherein correspondence in patent-related matters to organizations reporting to the Commissioner for Patents must now be addressed to:**

**Commissioner for Patents**

**P.O. Box 1450**

**Alexandria, VA 22313-1450**

PK   
July 9, 2003



MATTHEW SMITH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800